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REMARKS/ARGUMENTS

The paragraphs 2 and 3 of the final office action, claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ratcliff et al. (U.S. Patent No. 5,740,438) hereinafter Ratcliff, in view of Shah (U.S. Number 6889380 B1) hereinafter Shah, Lioy (U.S. Patent No. 6775553) hereinafter Lioy, and Golasky et al. (U.S. Patent No. 6680101 B2) hereinafter Golasky. The rejection is respectfully traversed and reconsideration is requested.

Ratcliff discloses a data processing system in which a host has multiple partitions and a Host-To-Network-Interface (HNI) provides for communication between the host and the network. Ratcliff is an example of the prior art before the invention claimed in the present invention. As described in the previous amendment, in Ratcliff the address is assigned before a message is sent to a network. See for instance column 5, lines 31-33, "As is well known, the device address identifies both the application sending the commands and the partition that the application is executing in. Specifically, the device address is available on the internal process busses and on the ESCON Multiple Image Facility ('EMIF') channels." Further, at column 5, lines 56-59, "When an initialization sequence is detected by the HNI, an entry is added for the initiating application to the network to host connection table, referred to herein as a 'connection table'."

Also, it is clear that in Ratcliff, the HNI is not in the network (fabric), but is between a port and the host. See column 6, lines 38-40, "Such processing begins with the receipt of a data frame from a network through a port and into the HNI (105)." Also, see column 7, lines 47-49, "An outbound data frame flows from an application in a partition to an HNI and out a port to a network." See also Fig. 4.

Since the HNI must process each inbound and outbound frame for its destination, it is submitted that the connection table must be in the memory 83 of the HNI. See column 5, lines 53-59, "According to the techniques of the present invention, a common HNI is responsive to initialization sequences from multiple applications in multiple partitions (Fig. 5-101). When an initialization sequence is detected by the HNI, an entry is added for the initiating application to a network to host connection table, referred to herein as a 'connection table' (103)."

It is submitted that Ratliff does not describe any addresses being assigned by the fabric. Col. 5, line 53 of Ratliff says that the Host to Network Interface (HNI, 67) "is responsive to initialization sequences" which come from the applications. These initialization sequences

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contain the addresses that the HNI merely puts into the table (spanning cols 5-6). This act of entering the addresses into a table is not the same thing as "assigning an address identification by the fabric . . . being associated with the respective partition . . ." as claimed. If looked at in terms of the HNI, itself, it would not solve the problem the claimed method solves which is to provide the application (or partition) with an address that it didn't have to start with. Also, even if the addresses are interpreted as being assigned, the Fabric isn't assigning them as claimed, since in Ratliff, they come from the host.)

Independent claim 1 makes clear that the assigning is done in the fabric, and not in the channel adapter 104, as is done in Ratcliff. Further, claim 1 makes clear that the sender of a message between the fabric and the partition sees multiple channel adapters and wherein the channel adapter is a channel adapter with multiple addresses. This is supported in paragraph [0019] of the specification. Also, the address identifications assigned by the fabric are stored in a table in the fabric. Thus, in claim 1, the addresses of the partitions are assigned in the fabric and stored in the fabric, whereas in Ratcliff, the addresses are already assigned by the host before a message is sent from the host to the network, and the HNI builds a connection table in the HNI. Claim 1 has been amended to make clear that the unique address identification assigned by the fabric associated with the respective partition is previously unknown to the partition. The examiner cites Shah as describing a scheme (i.e. an Infiniband subnet) in which multiple addresses are assigned to "multiple attachment points" (i.e. ports) of a channel adapter. While Shah describes how the Infiniband (IB) subnet manager assigns addresses to channel adapter ports, it does NOT describe assigning multiple addresses to each port. Instead, it assigns a UNIQUE address to each port, as repeatedly pointed out in Col. 7 line 32, Col. 8 line 26 and Col. 8 line 64. As claimed in claim 1, the fabric assigns multiple addresses to a single port (N_Port) on the adapter, and Shah does not describe this at all.

Lioy discloses a peer-to-peer wireless communication network wherein IP addresses are established in the network. In Lioy, a requester negotiates for IP addresses by sending a configure-request to a peer with a suggested IP address. If the suggested address is not acceptable, then a configure-Nak is returned, and the requester sends a new suggestion. This continues until an address that is acceptable to both peers is found, and a configure-Ack is returned. (see column 3, line 66 to column 4, line 11). Thus, in Lioy, the address is not assigned by the fabric, but rather by negotiations between the peers. Further, in Lioy a table of the

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address identifications is not stored in the fabric, as claimed. Lioy describes a process by which addresses are assigned in response to requests (Col 3., line 66 – Col. 4, line 11). Col. 4, line 12 goes on to say that only a single address can be assigned. Claim 1 claims multiple addresses are assigned to the same channel adapter as assigned for multiple partitions. Claim 1 also claims, "storing in a table in the fabric, the world-wide unique partition identifiers and their corresponding addresses". Lioy does not keep fabric-wide partition IDs in the fabric.

It is submitted that Shah's concept of assigning an address by a subnet manager is not the same or make obvious the language of claim 1 "wherein multiple addresses are assigned to the same channel adapter as assigned for said multiple partitions". It is further submitted that Lioy's concept of negotiating addresses between peers does not make the claimed invention obvious. For instance, the references cited by the examiner do not describe requests being sent on behalf of a single partition uniquely identified by a Port Name that is unique through the fabric. Ratliff's table has device addresses and partition IDs (i.e. device addresses) in the HNI table, but these are not unique in the fabric since other HNIs could have the same device addresses in their tables. None of the references cited by the examiner include the fabric associating each address with any partition ID that is unique through the fabric. The tables claimed in the fabric have, for instance, Port Names which are fabric-wide unique. None of the references cited by the examiner include the concept of requesting a specific address and "confirming by the fabric that the proposed address has already been assigned to the same partition" (See claim 4). This is impossible unless the Fabric keeps the fabric-wide unique partitions IDs in its table. Further, claim 1 has been amended to make clear that the partition identifier is a world-wide unique partition identifier. This is discussed at paragraph [0018] of the specification. None of Ratcliff, Shah or Lioy teaches or suggests the use of a world-wide unique identifier to identify the partition, as claimed in claim 1.

It is respectfully submitted that the examiner's citation to Golasky col. 4 lines 27-51 is not an example of a 64-bit world-wide-unique partition identifier as claimed, but the cited identifiers are actually SCSI-3 LUNs (Logical Unit Numbers), which are NOT world-wide unique. Instead, they are only unique to a SCSI device, and multiple SCSI devices can be present in any network, each with identical 64-bit LUNs. Thus, it is submitted that the examiner's statement about a "partition" (what he calls a partition is a LUN in this case) being addressable by this "world-wide unique" identifier is incorrect.

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The examiner has also cited Golasky col. 5 lines 20-26 along with the above citation. These lines actually refer to world-wide unique identifiers, but these identifiers aren't the same ones as those in the col. 4 reference. Instead, these world-wide unique identifiers are the identifiers (WWPNs) belonging to the host N_Port. These identifiers are NOT addresses of the "device," and they do not "allow a partition (gf: i.e. LUN) of a device to be directly contacted..." as claimed by the examiner on page 6, first paragraph of the office action, since the address of the device is the LUN number, not the host WWPN. In the col. 5 citation, the device address is simply the LUN number (i.e. LUN 0 in the cited example), and all devices in the network could have a LUN 0.

It is submitted that even if in the col. 5 citation of Golasky, LUN 0 citation was "assigned" to the WWPN of host 20, but this "assignment" was not an address assignment to the LUN, and it did not "allow a partition of a device to be directly contacted..." as the examiner stated since it isn't part of the device address at all. Also, it isn't "used for communicating with the respective partition" as the addresses claimed in claim 1. What is actually happening in the col. 5 reference of Golasky is that the LUNs are being assigned "LUN masks," which are sets of host WWPNs that the LUN is allowed to communicate with. In the example, there is only one WWPN in the LUN mask for LUN 0, but there could have been more. The process of assigning LUN masks to a LUN is not the same as assigning addresses to a LUN.

As to claim 4, claim 4 claims "confirming by the fabric that the proposed address has already been assigned to the same partition". This Lioy cannot do since the fabric in Lioy doesn't keep fabric-wide partition IDs.

It is respectfully submitted that claims 1-4 as amended are allowable under 35 U.S.C. 103(a) over Ratcliff in view of Shah, Lioy and Golasky, which allowance is respectfully requested.

In paragraph 4, claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ratcliff in view of Shah, Lioy, and Golasky and further in view of Kanemaki et al. (U.S. patent No. 608145) hereinafter Kanemaki. The rejection is traversed, and reconsideration is requested for the same reasons as set out above for Ratcliff, Shah, Lioy and Golasky. Kanemaki discloses an

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ARP server which can inform a calling terminal of an address suitable for an intended communication with a receiving terminal among a plurality of address usable for that purpose. There is no teaching or suggestion that the ARP server can be used with multiple partitions and a fabric, and assigning a unique address identification, each address identification being associated with the respective partition on whose behalf the request was sent for effecting communication with the respective partition, as claimed in claim 1. It is respectively submitted that claim 5 is allowable under 35 U.S.C. 103(a) over Ratcliff in view of Shah, Lioy and Golasky further in view of Kanemaki, which allowance is respectfully requested.

It is respectfully submitted that the application is now in condition for allowance, which allowance is respectfully requested.

RESPECTFULLY SUBMITTED

/Floyd A. Gonzalez/
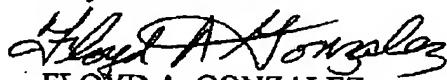
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